

Notice of Allowability

Application No.

09/532,585

Examiner

ALEXANDER BOAKYE

Applicant(s)

KAMETANI, JUN

Art Unit

2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 01/09/2004.
2. ☒ The allowed claim(s) is/are 1-31; renumbered as 1,2,4,5,3,6-31 respectively.
3. ☒ The drawings filed on 22 March 2000 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance: Claims 1-35 are considered allowable since when reading the claims in light of the specification, none of the references of record alone or in combination disclose or suggest the combination of limitations specified in the independent claims. As to claims 1, 2 and 5 the prior art of record does not teach a table storing flow data including a routing data and a search key; and a processing unit that searches said flow data from said table based on a routing packet search key received via one of said plurality of lower layer processing units when said flow data for said search key of said routing packet is registered on said table, and selectively transfers the routing packet to one of said plurality of lower layer processing units based on the routing data of the searched flow data wherein the transfer occurs without a microprocessor routing process.

As to claims 3, 4 and 6, the prior art of record does not teach packet switching apparatus comprising: a plurality of lower layer processing units which are connected to physical output ports and each of which carries out a process for a data link layer and a physical layer for a packet; a table storing flow data including a routing data and a search key; and a processing unit that searches the flow data from the table based on a search key of a routing packet search key received via one of the plurality of lower layer processing units when the flow data for the search key of the routing packet is registered on the table and selectively transfers the routing packet to one of the

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plurality of lower layer processing units based on the routing data of the searched flow data.

As to claims 7-15 and 16-23, the prior art of record does not teach a processing unit which searches a flow data from the table based on a search key of a routing packet received via one of the plurality of lower layer processing units in a packet memory, when the flow data for the search key of the routing packet is registered on the table and the flow data includes the security data, the search key including a destination address, transfers the security data of the searched flow data as the specific security data, the routing packet as the first packet, and one of the encrypt and decrypt instructions to the security unit, searches another flow data from the table based on a search key of the second packet from the security unit as a routing packet, when the another flow data is registered on the table, and selectively transfers the second packet to one of the plurality of lower layer processing units based on the routing data of the searched another flow data.

As to claim 24, the prior art of record does not teach transferring the routing packet to a physical output port determined based on a destination address of the routing packet when the flow data for the search key of the routing packet is registered on the table without a microprocessor routing process.

As to claim 25, the prior art of record does not teach searching a table for a flow data based on a search key of a routing packet, the flow data including a routing data and the search key; and transferring the routing packet to a physical output port

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determined based on a destination address of the routing packet when the flow data for the search key of the routing packet is registered on the table.

As to claims 26-31, the prior art of record does not teach selectively generating one of an encrypt and decrypt instruction based on the destination address; carrying out one of an encrypting process or decrypting process to the routing packet based on the security data in response to the generated instruction, when the flow data for the search key of the routing packet is registered on the table and the flow data includes the security data, to produce another routing packet.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Boakye whose telephone number is (703) 308-9554. The examiner can normally be reached on M-F from 8:30am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham, can be reached on (703) 305-4378. The fax number is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703) 305-4750.

Alexander Boakye

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Patent Examiner

AB

8/10/04


CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600 8/17/04